

## Determination of the zinc serum level in vitiligo among patients referred dermatology clinic of Emam-Khomeini Hospital Ardabil

### Abstract

**Background and aim:** Vitiligo is a pigmentation disorder which is caused by destruction of melanocysts.

Several hypothesis such as auto immune, genetics, neurogenetics and self destruction, are considered, Although there are different therapy methods, but the therapies are not usually satisfactory. According to previous researches, the damage of melanocysts by oxidant materials has been reported and according to role of Zinc in antioxidant enzymes and its role in melanosis, this study has been done by the aim of determination of Zinc Serum level and vitiligo disease.

**Materials and methods:** This study has been done as a case study. Case study sample consisted of 100 people with vitiligo disease who had referred to skin clinics of Imam Khomeini hospital. 100 people who had the same age and the same sex and were healthy were selected and then Zinc serum level were measured on this two groups through biochemical experiments. Then the findings were analyzed by Student T Test by SPSS software and compared and average difference of Zinc Serum level in two groups by  $P < 0/005$  was considered meaningful.

**Results:** Among 100 case study sample, 54 people were male and 46 people were female. The most frequent disease was in the range of 20-29 years old (34 %) . Among the patients, the ones who had 1- 5 years disease duration had the most frequency (55%) . The widespread and common type of vitiligo, was generalized vitiligo (81%) and 31% of the patients had the most frequent involvement of 10- 20  $cm^2$ .

The average Zinc serum level in patients was 80.11 and 96.10 in healthy people ( $P = 0/0001$ ) There was meaningful difference between Zinc serum level on two groups. There wasn't meaningful difference between Zinc serum level and family record and type of vitiligo and duration of disease and involvement level.

**Conclusion:** This study showed that there is a meaningful relation between reduction of Zinc serum level and Vitiligo disease.

**Key words:** Zinc, Vitiligo disease, Serum level.